Attorney Docket No.: 64693-102

Amendments to Claims

Claims 1-23 are pending in the application. The Examiner has rejected claims 1-23. Please amend claims 1, 3, 6, 7, 13, 15, 16 and 21 as follows:

1. (Currently amended) A surgical drain comprising: an elongated conduit configured to be implanted in and to drain fluid from a patient's body ~~cavity~~ comprising a drain lumen and at least one sensing element; ~~and a first sensing system configured to sense a physiological property of a substance within the drain lumen.~~ wherein the at least one sensing element is configured to sense a biochemical property of a substance within the drain lumen.

2. (Original) The surgical drain of claim 1 configured to drain blood, puss, bile or intestinal contents.

3. (Currently amended) The surgical drain of claim 1, comprising ~~a second sensing system~~ plurality of sensing elements configured to sense ~~a different~~ plurality of biochemical ~~physiological property than the first sensing system~~ properties.

4. (Original) The surgical drain of claim 1, wherein the biochemical ~~physiological~~ property is selected from the group comprising: oxygenation, perfusion, ~~temperature~~, pH, NADH levels, biochemical composition, or drug concentration ~~turgidity or pressure~~.

5. (Original) The surgical drain of claim 1, wherein the conduit includes a drain portion configured to rest against a substantial length of tissue within the body cavity and a plurality of drain holes spaces along substantially the entire length of the drain portion.

6. (Currently amended) The surgical drain of claim 1, comprising a display in communication with the ~~first~~ at least one sensing ~~system~~ element, wherein the display is configured to depict data corresponding to the biochemical ~~physiological~~ property sensed by the ~~first~~ at least one sensing ~~system~~ element.

7. (Currently amended) A surgical drain comprising: an elongated conduit configured to be implanted in and to drain fluid from a patient's body ~~cavity~~, the elongated conduit including a lumen having a first position and a second position located within the lumen; a first transmitting element configured to deliver energy ~~to~~ into the lumen proximate to the first position; and a first sensing system configured to receive energy within the lumen proximate to the lumen second position.

8. (Original) The surgical drain of claim 7, wherein the first transmitting element and first sensing system are embedded within the conduit behind material that is optically transparent.

9. (Original) The surgical drain of claim 7, wherein the first position and second

position are located on substantially opposite sides of the drain lumen.

10. (Original) The surgical drain of claim 7, wherein the lumen includes a third position and a fourth position, further comprising: a second transmitting element configured to deliver energy to the lumen proximate to the third position; and a second sensing system configured to receive energy proximate to the lumen fourth position.

11. (Original) The surgical drain of claim 10, further comprising a processing system in communication with the first and second sensing systems configured to compare a difference between the energy detected by the first and second sensing systems.

12. (Currently amended) The surgical drain of claim 10, comprising a third sensing system configured to sense a different biochemical ~~physiological~~ property than the first sensing system.

13. (Currently amended) The surgical drain of claim ~~10~~ 12, wherein the biochemical ~~physiological~~ property is selected from ~~the~~ a group comprising: oxygenation, perfusion, ~~temperature,~~ pH, NADH levels, biochemical composition, or drug concentration, turgidity or pressure.

14. (Currently amended) The surgical drain of claim 10, wherein the conduit

includes a drain portion configured to rest against a substantial length of tissue within the patient's body ~~cavity~~ and a plurality of drain holes spaces along substantially the entire length of the drain portion.

15. (Currently amended) The surgical drain of claim ~~10~~ 12, comprising a display in communication with the ~~third~~ second sensing system, wherein the display is configured to depict data corresponding to the biochemical ~~physiological~~ property sensed by the ~~third~~ second sensing system.

16. (Currently amended) A method of utilizing a surgical drain to monitor substances in a drain lumen comprising: implanting a surgical drain having a surgical drain lumen within a patient's body ~~cavity~~ in proximity to a tissue to be monitored, wherein the surgical drain includes a first sensing system configured to sense a ~~physiological~~ biochemical property of a substance within a the drain lumen; receiving information from the first sensing system regarding a substance within the drain lumen; monitoring the information received from the sensing system to evaluate the condition of the tissue over time.

17. (Original) The method of claim 16, comprising transmitting energy within the drain lumen and receiving energy with the first sensing system.

18. (Original) The method of claim 16, further including processing the information received from the first sensing system.

19. (Original) The method of claim 18, further including displaying information received from the first sensing system.

20. (Currently amended) The method of claim 18, wherein implanting the surgical drain comprises anchoring the surgical drain to a tissue within the patient's body ~~cavity~~.

21. (Currently amended) A method of utilizing a surgical drain to monitor substances in ~~the~~ a drain lumen comprising: implanting a surgical drain within a patient's body ~~cavity~~ in proximity to tissue to be monitored, wherein the surgical drain includes a first and a second sensing system configured to sense a physiological property of ~~a~~ at least one substance within the drain lumen; receiving information from the first and second sensing systems regarding the ~~substances~~ at least one substance in the drain lumen; monitoring the information received from the first and second sensing systems to evaluate the condition of the tissue over time.

22. (Original) The method of claim 21, comprising processing information from the first and second sensing systems to compare a difference in information received from the first and second sensing systems.

23. (Original) The method of claim 21, comprising processing information from

the first and second sensing systems to compare a difference in information received from the first and second sensing systems proximate to different positions along the drain lumen.